

## REPLACEMENT SHEET

# FIG. 1

layer two data center network

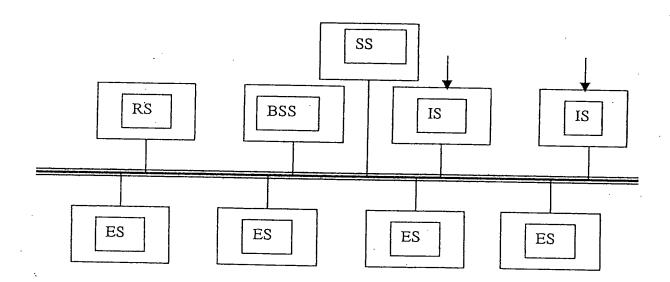
ES: End System

IS: Intermediate System

SS: Control System

BSS: Backup Supervisor System

RS: Radius Server used for Authentication, Authorization, and Accounting (AAA)





## REPLACEMENT SHEET

	FI	G. 2(a)			
End System		Control			
	·	System			
Service rep	gistration reque	st	<b></b> →		
Service rep	gistration ackno	owledge	<u>,</u>		
Keep-alive	message				
End system register its service from Control system FIG. 2(b)					
End		Control			
System		System			
	-registration rec		→		
Service de	registration acl	knowledge			

End system de-register its service from Control system



## **REPLACEMENT SHEET**

FIG. 3(a)

Intermediate System Control System

Service add update (seq n)
Service add update acknowledge (seq n, from IS1)
Service add update acknowledge (seq n, from IS2)
Service add update (seq n+1)
Service add update acknowledge (seq n+1, from IS1)
Service add update acknowledge (seq n+1 from IS2)

Control system sends update about new end systems (servers)



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FIG. 3(b)

Intermediate System

Control

System

Service delete update (seq n)
Service delete update acknowledge (seq n, from IS1)
Service delete update acknowledge (seq n, from IS2)
Service delete update (seq n+1)
Service delete update acknowledge (seq n+1, from IS1)
Service delete update acknowledge (seq n+1 from IS2)

Control system sends update about deleted end systems (servers)

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FIG. 3(c)

Intermediate System

Control System

Service update request

Service add update (1st update, seq n)

Service add update acknowledge (seq n)

Service add update (2nd update, seq n+1)

Service add update acknowledge (seq n+1)

Service add update (last update, seq n+x)

Service add update acknowledge (seq n+x)

Keep-alive message

New intermediate system (possible an end system too) retrieve the server list for a specific type of service



#### REPLACEMENT SHEET

FIG. 5

End
System

Intermediate
System

Flow advertisement message

Flow advertised by an end system

Flow advertisement acknowledge

FIG. 6

Any System Control

System

Assigned number request

Assigned number reply

Request number(s) from centrally controlled number server (CS)



## REPLACEMENT SHEET

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	_ rid. /	
Back up	·	Control
Supervisor System	n	System
Number	update request	
Number	update (1st update, seq n)	<del></del>
Number	update acknowledge (seq 1	1)
Number	update (2nd update, seq n+	-1)
Number	update acknowledge (seq r	1+1)
		7
Number ·	update (last update, seq n+	x)
Number	update acknowledge (seq n	+x)

New back up control system to retrieve the assigned number list from Primary control system